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Space and time correlations in quantum histories

Monday, 23 June 2025 10:00 (30 minutes)

The formalism of generalized quantum histories allows a symmetrical treatment of space and time correlations, by taking different traces of the same history density matrix. We characterize spatial and temporal entanglement in this framework. An operative protocol is presented, to map a history state into the ket of a static composite system. We show, by examples, how Leggett-Garg and temporal CHSH inequalities can be violated in our approach.

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